

Application No.: 10/787,221

REMARKS

This Amendment is filed in response to the final Office Action dated July 9, 2007. For the following reasons the application should be allowed and the case passed to issue. No new matter is introduced by this amendment. Support for the amendment to claims 1, 5, 9, and 15 is found in the specification at page 3, line 11 to page 4, line 6.

Claims 1-15 are pending in this application. Claims 13 and 14 have been withdrawn pursuant to a restriction requirement. Claims 1-12 and 15 are rejected. Claims 1, 5, 9, and 15 have been amended in this response.

Information Disclosure Statement

The Office Action included initialed copies of the PTO-1449 forms submitted with the Information Disclosure Statements (IDS) filed January 24, 2007; April 4, 2007; May 21, 2007; and June 25, 2007. The Examiner apparently inadvertently did not initial the entries for the two November 28, 2006 Office Actions on the January 24, 2007 IDS and the entry for the April 18, 2007 Office Action on the June 25, 2007 IDS. It is respectfully requested that the Examiner consider these entries and return fully initialed Information Disclosure Statements with the next official action.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-8 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Takemura et al. (U.S. Pat. No. 6,224,688) (Takemura et al. '688). The Examiner asserted that Takemura et al. ('688) disclose a rolling bearing having a nitrided layer with a grain size exceeding 10. As regards claims 5-8, the Examiner asserted that the fracture stress was an inherent characteristic.

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Claims 9-12 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Takemura et al. (U.S. Pat. No. 6,440,232) (Takemura et al. '232). The Examiner asserted that Takemura et al. ('232) disclose a rolling bearing having a nitrided layer and a hydrogen content of at most 0.5 ppm.

These rejections are traversed, and reconsideration and withdrawal thereof respectfully requested.

Takemura et al. '688 and Takemura et al. '232 do not anticipate the claimed transmission components because Takemura et al. '688 and Takemura et al. '232 do not disclose transmission components having the claimed **non-diffusible** hydrogen content, as required by claims 1 and 9; non-diffusible hydrogen content and fracture stress value, as required by claim 5; and the tapered rolling bearing having a **non-diffusible** hydrogen content, as required by claim 15.

As disclosed in the present specification at page 3, line 16 to page 4, line 2:

If steel has a hydrogen content exceeding 0.5 ppm the steel has reduced anti-crack strength. Such a steel is insufficiently suitable for a support structure for a hub experiencing heavy loads. A lower hydrogen content is desirable. However, reduction of the hydrogen content to the one less than 0.3 ppm requires long-term heat treatment, resulting in increase in size of austenite grains and thus deterioration in toughness. Then, a hydrogen content is desirably in a range from 0.3 to 0.5 ppm and more desirably in a range from 0.35 to 0.45 ppm.

In measuring the above hydrogen content, diffusible hydrogen is not measured and only the non-diffusible hydrogen released from the steel at a predetermined temperature or higher is measured.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the disclosure in a single reference of each element of a claimed invention. *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 399, 36 USPQ2d 1101 (Fed. Cir. 1995); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321

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(Fed. Cir. 1992); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). Because Takemura et al. ('688) and Takemura et al. '232 do not disclose transmission components having the claimed **non-diffusible** hydrogen content, as required by claims 1 and 9; non-diffusible hydrogen content and fracture stress value, as required by claim 5; and the tapered rolling bearing having a **non-diffusible** hydrogen content, as required by claim 15, Takemura et al. ('688) and Takemura et al. ('232) do not anticipate claims 1, 5, 9, and 15.

Applicants further submit that Takemura et al. ('688) and ('232), whether taken alone, or in combination, do not suggest the claimed transmission component.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-8 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takemura et al. ('688) in view of Maeda et al. This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested.

Takemura et al. ('688) and Maeda et al., whether taken in combination, or taken alone, do not suggest the claimed transmission component because Maeda et al. do not cure the deficiencies of Takemura et al. ('688). Maeda et al. do not suggest transmission components having the claimed **non-diffusible** hydrogen content, as required by claims 1 and 9; non-diffusible hydrogen content and fracture stress value, as required by claim 5; and the tapered rolling bearing having a **non-diffusible** hydrogen content, as required by claim 15.

The dependent claims are allowable for at least the same reasons as the respective dependent claims from which they depend and further distinguish the claimed invention.

In view of the above amendments and remarks, Applicants submit that this application should be allowed and the case passed to issue. If there are any questions regarding this

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Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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